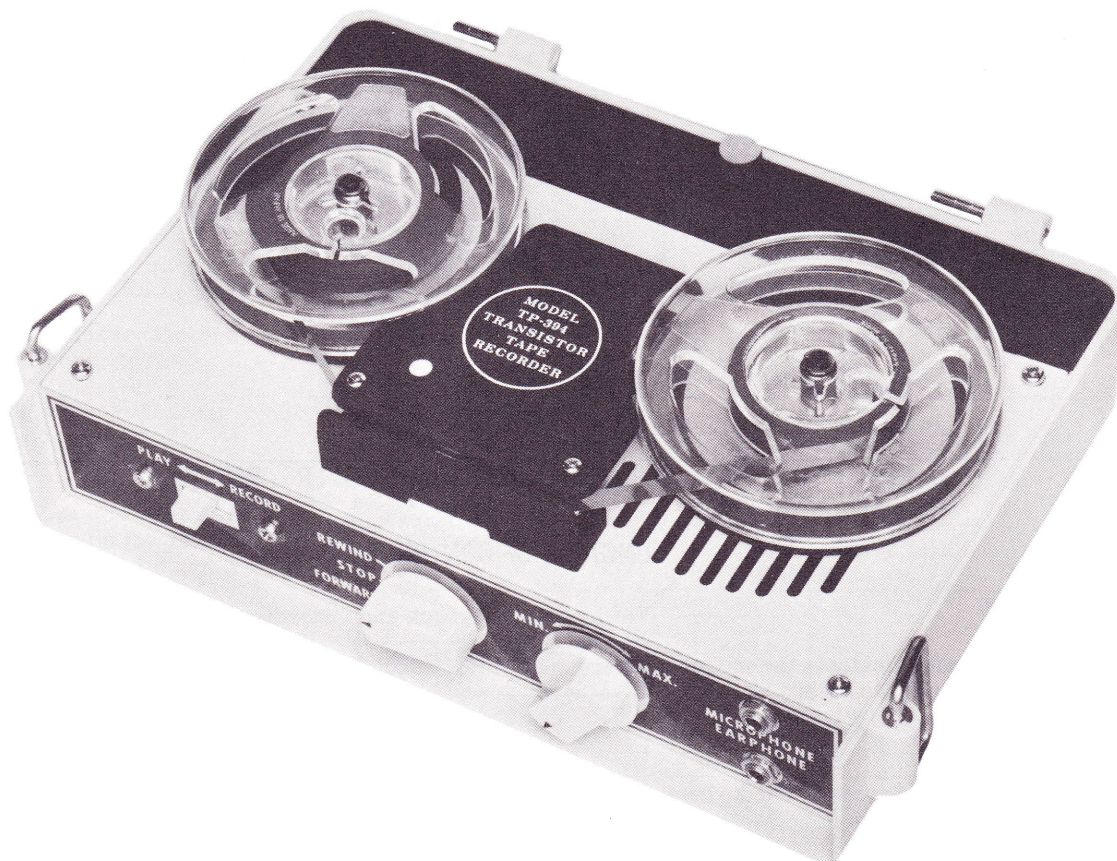


CONTINENTAL  
MODEL TP-394CONTINENTAL  
MODEL TP-394

## GENERAL INFORMATION

The Continental Model TP394 is an all transistor, battery-operated two-track portable tape recorder.

The amplifier is powered by one 9-volt battery and the motor is powered by two 1½-volt batteries.

The transport has one speed for playback and recording.

Supplied By:

Continental Merchandise Co., Inc.  
236 Fifth Avenue  
New York 1, New York

**HOWARD W. SAMS & CO., INC.** Indianapolis 6, Indiana

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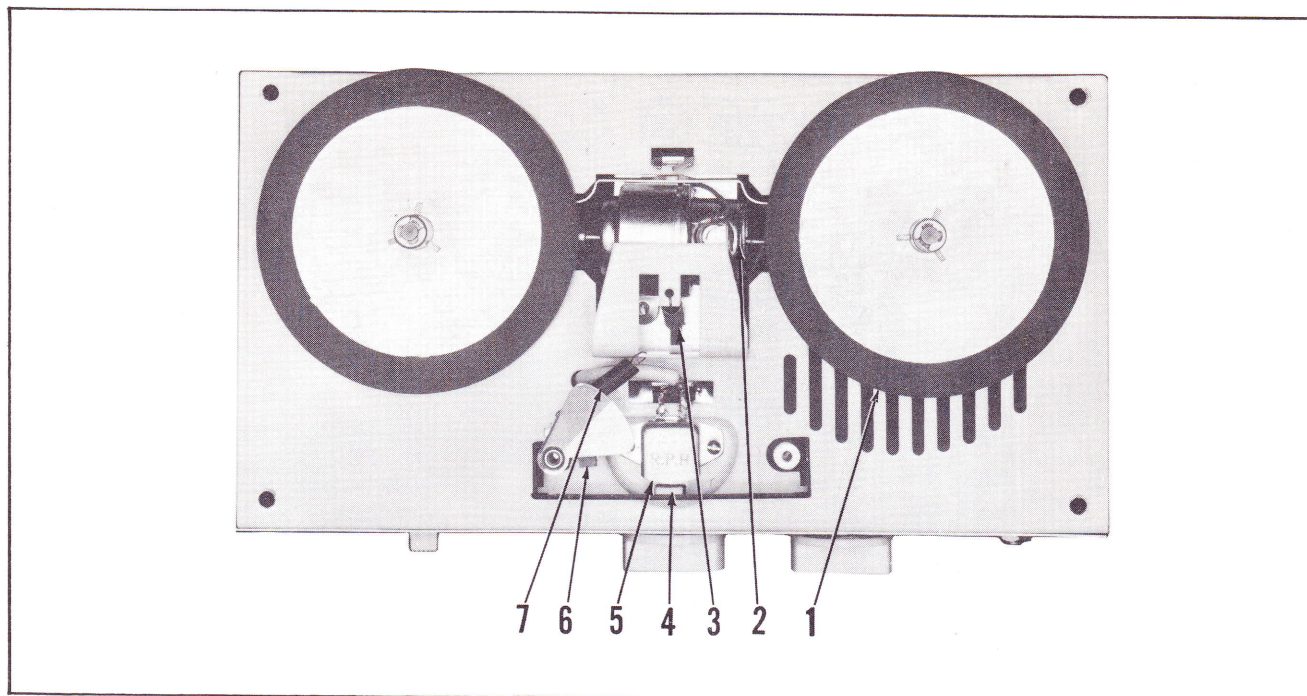


FIG. 1 TOP VIEW OF MECHANISM WITH COVERS REMOVED

## FUNCTION OF CONTROLS

### Function Control

The function control selects the modes of operation: Rewind, Forward, and Stop.

### Volume

The volume control varies the audio level during

playback and recording level when recording.

### Play-Record

Turn the switch to the left to play back recorded material and to the right to record.

## OPERATING INSTRUCTIONS

### Preparing for Operation

1. Remove the lid.
2. Insert the batteries, observing correct polarity.

### Threading the Tape

1. Place a reel of tape on the supply spindle and an empty reel on the take-up spindle.
2. Unwind about 8 inches of tape. Thread the tape through the head slot making sure the shiny side of the tape faces the front of the unit.
3. Insert the end of the tape into one of the slots in the hub of the take-up reel and rotate the reel several times to secure the tape.

### To Make a Record with Microphone

1. Thread a reel of tape on the transport as described under "Threading the Tape".
2. Insert the microphone plug in the Microphone jack.
3. Place the Play-Record switch in the Record position.

4. Using the earphone to monitor, rotate the volume control to its mid-position. The volume may be decreased or increased as recording conditions vary. Move the function control to the Forward position and begin the recording.

### To Make Dual-Track Recordings

When one side of the tape is completed, remove the full reel of tape from the take-up spindle and place it on the supply spindle. Place the empty reel on the take-up spindle. Thread the tape as described under "Threading the Tape" and continue recording.

### To Make a Recording from Radio or TV Receiver

Using a patch cord with alligator clips on one end, connect the clips across the speaker voice coil of the radio or TV receiver. Continue to make the recording as described under "To Make a Record with Microphone".

### To Rewind the Tape

To rewind the tape, move the function control to the rewind position. To stop tape rewind, move the function control to the Stop position.

## To Play a Recording

1. Follow the instructions under "Threading the Tape"
2. Move the Play-Record switch to the Play position.
3. Move the function control to the Forward position.
4. Adjust the volume control to desired listening level.
5. To stop tape transport, move function control to the Stop position.

## To Edit and Splice Tape

**NOTE:** Since one track cannot be edited and spliced without affecting the other, recordings to be edited should be limited to one track recordings only.

1. Tape may be edited by cutting out unwanted portions or by joining selections into another sequence. Unused sections can be spliced for reuse.
2. For best results, cut tape at a slight diagonal, join ends with splicing tape on the glossy side. Trim off any excess width.

## DISASSEMBLY

1. Remove the lid from the unit.
2. Remove the head cover by removing the two cover screws.
3. Remove the four screws, one in each top corner,
4. Carefully lift the transport up out of the case.
5. To reassemble, reverse the foregoing procedure.

## CLEANING

As the unit is used, a coating of tape oxide builds up on the head surface. This coating reduces efficiency of the unit and must be removed to insure

proper operation. Remove the coating using a soft cloth dampened with alcohol.

## LUBRICATION

Occasionally remove the spindle by removing the spindle retainer clips and clean the spindle shafts

and lubricate the shaft with a light grease. Do not lubricate the motor bearings.

## HEAD AZIMUTH ADJUSTMENT

Thread a prerecorded tape on the transport. Remove the head cover. Place the unit in operation

and adjust the headadjustment screws until maximum high-frequency response is obtained.

## TROUBLE CHART

SYMPTOM	CAUSE	REMEDY
Transport does not operate in any mode.	<ol style="list-style-type: none"> <li>1. Motor batteries dead.</li> <li>2. Defective motor (2).</li> <li>3. Broken lead to battery container.</li> <li>4. Motor tension spring (3) broken or disconnected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace batteries.</li> <li>2. Replace motor (2).</li> <li>3. Replace broken lead.</li> <li>4. Connect or replace spring (3).</li> </ol>
Transport will not rewind.	<ol style="list-style-type: none"> <li>1. Drive surface of supply spindle has oil or grease on it.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and replace supply spindle. Clean motor shaft.</li> </ol>
No Take-up.	<ol style="list-style-type: none"> <li>1. Oil or grease on drive surface of take-up spindle.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean motor shaft and driving surface of take-up spindle.</li> </ol>
Incomplete or no erase.	<ol style="list-style-type: none"> <li>1. Erase magnet return spring (7) broken or disconnected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect or replace spring (7).</li> </ol>

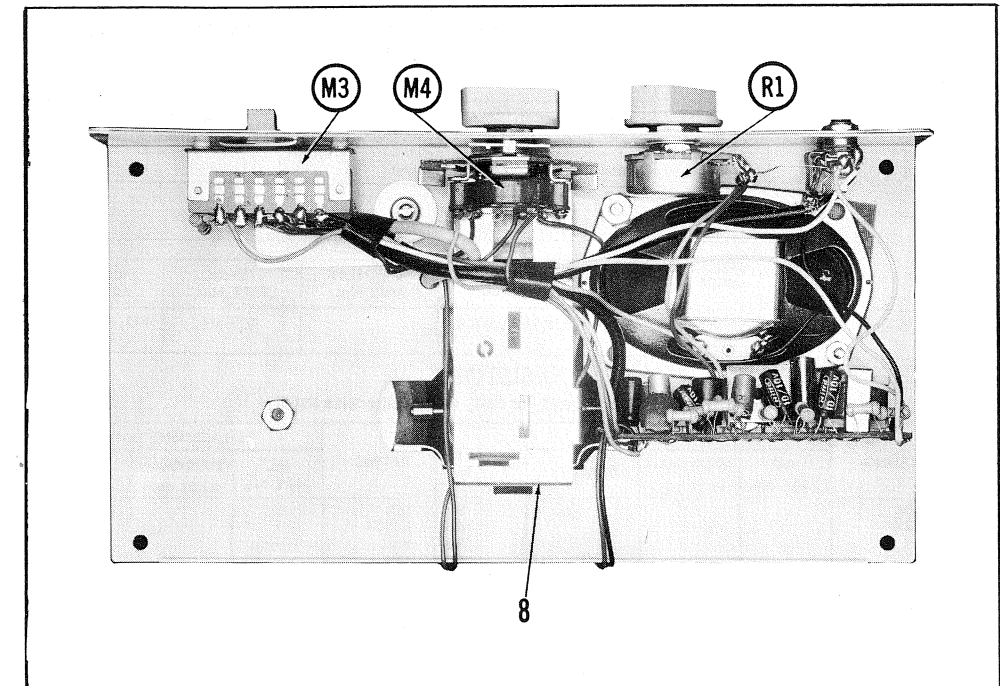


FIG. 2 BOTTOM VIEW OF MECHANISM

## MECHANICAL PARTS LIST

Ref. No.	Description	Ref. No.	Description
1	Reel Turntable	5	Record-Playback Head
2	Motor	6	Erase Magnet
3	Motor Tension Spring	7	Spring
4	Pressure Pad	8	Motor Shift Bracket

## ELECTRICAL PARTS LIST

### WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord .....	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 6 Ft. 17109 (Plastic) or 17129 (Rubber) - 9 Ft.
Power Cord (Interlock Type) .....	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)
Low-Loss Shielded Lead (Interconnecting) .....	Use BELDEN No. 8401 or 8421
Phono Pick-up Arm Cable .....	Use BELDEN No. 8430 (Two Conductor-Unshielded) 8429 (Two Conductor-Shielded) 8419 (Three Conductor-Shielded)

### TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	2SB175A 2SB171* 2N215*	AF Amplifier	2N406	2N362	PNP
X2	2SB175A 2N215*	AF Amplifier	2N406	2N362	PNP
X3	2SB176 2N217*	Output	2N408	2N631	PNP

\* Alternate.

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		Continental PART No.	REPLACEMENT DATA				
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.
C1	10	10	Note 1	BCD10010	ECPB408	MT1-5	PET1340	MLV10-10
C2	10	10		BCD10010	ECPB408	MT1-5	PET1340	MLV10-10
C3	10	10		BCD10010	ECPB408	MT1-5	PET1340	MLV10-10
C4	10	10		BCD10010	ECPB408	MT1-5	PET1340	MLV10-10
C5	10	10		BCD10010	ECPB408	MT1-5	PET1340	MLV10-10
C6	10	10	Note 1	BCD10010	ECPB408	MT1-5	PET1340	MLV10-10
C7	10	10		BCD10010	ECPB408	MT1-5	PET1340	MLV10-10
C8	30	10		PTT43	ECPB412	MT1-14	TT10X30	MLV40-12

Note 1. Not used in some versions.

ELECT. PARTS LIST AND DESCRIPTIONS (Continued)

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C9	.02		BPD-02	DA-203	H-05S2	CCD-203	TA-120	TG-S20
C10	.05		BPD-05	DA-503	H-05S5		TA-150	TG-S50

CONTROLS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			Continental PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume	5000Ω		BU1(A8-11, AK-1)		Q13-114	U12, (UA53A, SK-1000)

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R2	100K			①	R9	15K			(40K)* ①
R3	10K				R10	5000Ω			
R4	10K				R11	80Ω			
R5	1000Ω			(100K)* ①	R12	10K			(20K)*
R6	30K			(50K)* ①	R13	25K			
R7	5000Ω			(10K)*	R14	10Ω			
R8	1000Ω			(60K)*	R15	1000Ω			①

① Not used in some versions.  
\* Alternate.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	Continental PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	800Ω	6-8Ω						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	Continental PART No.	QUAM PART No.	
SP1	2"x 3"	PM	6-8Ω			

BATTERIES

ITEM No.	VOLTAGE	Continental PART No.	REPLACEMENT DATA				NOTES
			BURGESS "A"	EVEREADY "A"	MALLORY "A"	"B"	
M1	9V						
M2	1½V		2U6	216	M-1604	M-14R	Amp. Supply Motor Supply, 2 Required

MISCELLANEOUS

ITEM No.	PART NAME	Continental PART No.	NOTES
M3	Switch		Record-Play (2 Position Slide Type)
M4	Switch		Forward-Stop-Rewind (Rotary Wafer Type)

